1. (Amended) A moving mechanism, comprising:

a reference structure having a guide surface;

a movable portion being movable along the guide surface; and

an actuator having movable elements, provided at opposite end portions of the stage, and at least two stators, said stators being separated from each other and each being movable in two-dimensional directions by a reaction force produced as the movable portion is driven.

2. A moving mechanism according to Claim 1, wherein said stators are movable along the guide surface.

3. (Amended) A moving mechanism according to Claim 1, wherein said stators are movable in the two-dimensional directions along the guide surface.

4. A moving mechanism according to Claim 1, wherein said actuator is a linear motor having a movable element and a stator.

5. A moving mechanism according to Claim 4, wherein the stator of said linear motor is provided by a coil, and the movable element of said linear motor is provided by a permanent magnet.

6. A moving mechanism according to Claim 4, wherein the stator of said linear motor is provided by a permanent magnet, and the movable element of said linear motor is provided by a coil.

7. A moving mechanism according to Claim 1, further comprising a position measuring device and a driving mechanism, for positioning a reaction force counter being moved along a plane due to a drive reaction force of said movable portion as received by the stators.

8. (Amended) A stage having a moving mechanism as recited in Claim 1, and having a position measuring device and a driving mechanism for positioning the movable portion.

9. A stage according to Claim 8, further comprising an actuator for controlling the position of the stator.

10. A stage according to Claim 8, wherein said stage is movable in six-axis directions and having a θ and Z tilt stage mounted thereon.

11. (Amended) An exposure apparatus, comprising:

exposure means for projecting a portion of a circuit pattern on a substrate through a projection optical system, and for printing a predetermined exposure region of the pattern of an original onto the substrate; and

a stage as recited in Claim 8, for moving at least one of the original and the substrate for exposure thereof.

12. (Amended) An apparatus according to Claim 11, wherein the exposure is performed by scanning exposure in which the original and the substrate are scanningly moved relative to the projection optical system, whereby a predetermined exposure region of the pattern of the original is scanningly printed on the substrate, and wherein, for the scan, at least one of the original and the substrate is moved by said stage.

13. An apparatus according Claim 11, wherein said stage is connected to a barrel base on which the projection optical system is mounted.

14. An apparatus according to Claim 11, wherein ultraviolet light is used as exposure light.

15. An apparatus according to Claim 14, wherein the ultraviolet light is laser light from a laser source.

16. (Amended) An apparatus according to Claim 15, wherein the laser light is from a fluorine excimer laser.

17. (Amended) An apparatus according to Claim 15, wherein the laser light is from an ArF excimer laser.

18. (Amended) An apparatus according to Claim 11, wherein, in said stage, the relation between a stator and a movable element of a linear motor is based on an open structure, and wherein a shielding wall is provided inside the stator, said shielding wall extending from at least one of an illumination optical system and a projection optical system to the substrate structure, while enclosing a movable portion having the movable element, the inside space being purged by use of an inactive gas.

19. An apparatus according to Claim 18, wherein an interferometer for use as position measuring means is provided in a purge area inside the shielding wall.

20. (Amended) An apparatus according to Claim 19, wherein the interferometer includes a reaction force counter and the reaction force counter is supported by an actuator for producing a thrust in a straight direction, and wherein a drive reaction force in the straight direction is received by a reaction force receiving structure being supported by the floor, separately from the stage base.

21. (Amended) A device manufacturing method, comprising the steps of:

providing a group of production machines for performing various processes, including an exposure apparatus as recited in Claim 11, in a semiconductor manufacturing factory; and

producing a semiconductor device by performing plural processes using the production machine group.

22. A method according to Claim 21, further comprising (i) connecting the production machines of the group with each other through a local area network, and (ii) executing data-communication concerning information related to at least one production machine of the production machine group, between the local area network and an external network outside the semiconductor manufacturing factory.

23. A method according to Claim 21, wherein a database provided by a vendor or a user of the exposure apparatus can be accessed through the external network so that maintenance information related to the production machine can be obtained through the data communication, and wherein production control can be performed on the basis of data communication through the external network and between the semiconductor factory and a separate semiconductor factory.

24. (Amended) A semiconductor manufacturing factory, comprising:

a group of production machines, for performing various processes, including an exposure apparatus as recited in any one of Claims 11 - 20;

a local area network for connecting the production machines of the production machine group with each other; and

a gateway for enabling access from the local area network to an external network outside the factory,

wherein information related to at least one production machine in the group can be data communicated by use of the local area network and the gateway.

25. (Amended) A method of executing maintenance for an exposure apparatus as recited in any one of Claims 11 - 20, provided in a semiconductor manufacturing factory, said method comprising the steps of:

providing, by a vendor or a user of the exposure apparatus, a maintenance database connected to an external network outside the semiconductor manufacturing factory;

admitting access from the semiconductor manufacturing factory to the maintenance database through the external network; and

transmitting maintenance information stored in the maintenance database to the semiconductor manufacturing factory through the external network.

26. (Amended) An apparatus according to Claim 11, further comprising a display, a network interface and a computer for executing network software, wherein maintenance information related to said exposure apparatus is data communicated through the computer network.

27. An apparatus according to Claim 26, wherein the network software provides on the display a user interface for accessing a maintenance database prepared by a vendor or a user of said exposure apparatus and connected to an external network outside a factory where said exposure apparatus is placed, thereby to enable obtaining information from the database through the external network.

Please ADD new claims 28-35 as follows:

-- 28. An X-Y stage comprising:

a reference structure having a guide surface;

a first movable portion being movable in an X-axis direction along the guide surface;

a first actuator having first movable elements, provided at opposite end portions of said first movable portion, and first stators being movable;

a second movable portion being movable in an Y-axis direction along the guide surface;

a second actuator having second movable elements, provided at opposite end portions of said second movable element, and second stators being movable; and

a stage provided at an intersection defined between said first and second movable portions,

wherein said first stators are separated from each other and said second stators are separated from each other, and each stator is movable in two-dimensional directions by a reaction force produced as an associated movable portion is driven.

29. An X-Y stage according to Claim 28, wherein said first stators are disposed along the X-axis direction while said second stators are disposed along the Y-axis direction.

30. A moving mechanism according to Claim 28, wherein said stators are movable along the guide surface.

31. A moving mechanism according to Claim 28, wherein said stators are movable in the two-dimensional directions along the guide surface.

32. A moving mechanism according to Claim 28, wherein said actuator is a linear motor having a movable element and a stator.

Cont.

33. A moving mechanism according to Claim 32, wherein the stator of said linear motor is provided by a coil, and the movable element of said linear motor is provided by a permanent magnet.

34. A moving mechanism according to Claim 32, wherein the stator of said linear motor is provided by a permanent magnet, and the movable element of said linear motor is provided by a coil.

35. A moving mechanism according to Claim 28, further comprising a position measuring device and a driving mechanism, for positioning a reaction force counter being moved along a plane due to a drive reaction force of said movable portion as received by the stators. --

REMARKS

Applicants request favorable reconsideration and allowance of the subject application in view of the preceding amendments and the following remarks.

To place the subject application in better form, the specification has been amended to correct minor informalities, including those noted by the Examiner. Also, a new abstract is presented in accordance with preferred practice. No new matter has been added by these changes.